Title (en)

Using first and second resistive sensor bias levels to detect head-to-disk contact and/or clearance

Title (de)

Verwendung von Vorspannungsniveaus eines ersten und zweiten Widerstandssensors zum Nachweis von Kopf-Scheiben-Kontakten und/oder Beabstandung

Title (fr)

Utilisation d'un premier et d'un second niveau de polarisation de capteur résistif pour détecter le contact et/ou l'espacement de tête à disque

Publication

EP 2690625 A2 20140129 (EN)

Application

EP 13173887 A 20130626

Priority

US 201213555581 A 20120723

Abstract (en)

A bias signal is applied to a resistive thermal sensor located proximate a magnetic media reading surface of a magnetic sensor. The bias signal is modulated between first and second bias levels. First and second resistances of the resistive thermal sensor corresponding to the first and second bias levels are measured. Based a difference between the first and second resistances caused by in increase in thermal conductivity between the magnetic sensor and a medium as the magnetic head gets closer to the medium, at least one of a spacing and a contact between the magnetic sensor and the medium are determined.

IPC 8 full level

G11B 5/60 (2006.01)

CPC (source: EP KR US)

G11B 5/39 (2013.01 - KR); **G11B 5/607** (2013.01 - EP US); **G11B 5/6076** (2013.01 - EP US); **G11B 21/21** (2013.01 - KR)

Cited by

US11693028B2; WO2019096695A3

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 2690625 A2 20140129; **EP 2690625 A3 20140507**; CN 103578485 A 20140212; CN 103578485 B 20170412; JP 2014022036 A 20140203; JP 5927148 B2 20160525; KR 101502838 B1 20150316; KR 20140012905 A 20140204; US 2014023108 A1 20140123; US 9082440 B2 20150714

DOCDB simple family (application)

EP 13173887 A 20130626; CN 201310293831 A 20130712; JP 2013150444 A 20130719; KR 20130086911 A 20130723; US 201213555581 A 20120723